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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,642	11/24/2003	Ying Tat Leung	YOR920030362USI	1196
21254 7590 01/11/2008 MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC 8321 OLD COURTHOUSE ROAD SUITE 200 VIENNA, VA 22182-3817			EXAMINER DAM, KIM LYNN	
			ART UNIT 2179	PAPER NUMBER
			MAIL DATE 01/11/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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## Office Action Summary

Application No.

10/718,642

Applicant(s)

LEUNG ET AL.

Examiner

Kim-Lynn Dam

Art Unit

2179

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-10,12-14 and 16-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2, 4-10, 12-14 and 16-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/7/07 has been entered.
2. Claims 1-2, 4-10, 12-14 and 16-26 are pending. Applicant amended claims 1, 8, and 22-25.
3. Appeal filed on 1/2/08 is pre-mature as the claims have not been twice rejected.

### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 22 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 22 is directed to a signal-bearing medium tangibly embodying a program of machine-readable instructions. However, Applicant's disclosure (Page 16, line 13 to Page 17, line 4) defines "computer readable media" to include mediums which do not form the basic statutory subject matter under 35 U.S.C 101. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 4-10, 12-14, 16, 17, 20, and 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liao (US 2004/0021681) in view of Dardick (US 2002/0075317).

Regarding claim 1, Liao disclosed a laptop computer (Abstract, lines 1-20; Figure 1) comprising:

a first display (Figure 1, element 105); and

a second display attachable to the first display, wherein the second display comprises a touch-sensitive display that displays a reconfigurable user-interface (Figure 1, element 107; Paragraph 0029, lines 1-11; Abstract, lines 20-25; Paragraph 0011, lines 8-13),

Liao did not specifically disclose wherein said user-interface is reconfigurable to move a key within the user-interface. However, in an analogous art, Dardick disclosed the above limitation (Paragraph [0009], where displaying keys in multiple arrangements means the user-interface is reconfigurable to move a key). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the

teachings of Dardick into the user-interface of Liao since it allows for customization of touch-sensitive user-interfaces (Dardick: Page 1, paragraph [0008], lines 1-5; paragraph [0016], lines 6-9).

Regarding claim 2, the rejection of claim 1 is incorporated and further Liao disclosed wherein the second display is rotatably attachable to the first display (Abstract, lines 11-15; Paragraph 0011, lines 1-4; Paragraph 0024, lines 3-6).

Regarding claim 4, the rejection of claim 1 is incorporated and further Liao disclosed wherein the user-interface comprises a keyboard (Abstract, lines 20-25; Figure 2; Paragraph 0011, lines 17-24).

Regarding claim 5, the rejection of claim 1 is incorporated and further Liao disclosed wherein the user-interface comprises a pointing device (Paragraph 0027, lines 9-14; Paragraph 0030, lines 19-24).

Regarding claim 6, the rejection of claim 1 is incorporated and further Liao disclosed wherein the user-interface is reconfigurable in accordance with instruction from a software application being executed on the laptop computer (Paragraph 0029, lines 17-34 (where different applications have different user interfaces as shown in Figures 4,5,6 and 7)).

Regarding claim 7, the rejection of claim 1 is incorporated and further Liao disclosed wherein the first display comprises a touch-sensitive display (Abstract, lines 1-20; Figure 1, element 105; Paragraph 0025, lines 1-4).

Regarding claim 8, Liao disclosed a method of driving a laptop computer having a first display attachable to a second display that is touch-sensitive (Abstract, lines 1-20; Figure 1), the method comprising:

displaying a user-interface on the second display (Abstract, lines 20-25; Paragraph 0011, lines 8-13, Paragraph 0029, lines 1-11);

receiving an input from the user-interface (Abstract, lines 15-25)

Liao did not specifically disclose wherein said user-interface is reconfigurable to move a key within the user-interface. However, in an analogous art, Dardick disclosed the above limitation (Paragraph [0009], where displaying keys in multiple arrangements means the user-interface is reconfigurable to move a key). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Dardick into the user-interface of Liao since it allows for customization of touch-sensitive user-interfaces (Dardick: Page 1, paragraph [0008], lines 1-5; paragraph [0016], lines 6-9).

Regarding claim 9, the rejection of claim 8 is incorporated and further Liao disclosed wherein the first display is rotatably attachable to the second display (Abstract, lines 11-15; Paragraph 0011, lines 1-4; Paragraph 0024, lines 3-6).

Regarding claim 10, the rejection of claim 8 is incorporated and further Liao disclosed wherein the user-interface comprises a keyboard (Abstract, lines 20-25; Figure 2; Paragraph 0011, lines 17-24).

Regarding claim 12, the rejection of claim 8 is incorporated and further Liao disclosed wherein reconfiguring the user-interface comprises reconfiguring the user-interface in response to an application state (Paragraph 0029, lines 17-34 (where different applications have different user interfaces as shown in Figures 4,5,6 and 7); Paragraph 0031, lines 1-5).

Regarding claim 13, the rejection of claim 8 is incorporated and further Liao disclosed wherein reconfiguring the user-interface comprises reconfiguring the user-interface in response to a user preference (Paragraph 0011, lines 18-25; Paragraph 0031, lines 11-16).

Regarding claim 14, the rejection of claim 8 is incorporated and further Liao disclosed wherein reconfiguring the user-interface comprises reconfiguring the user-interface in response to a user instruction (Paragraph 0011, lines 17-24; Paragraph 0029, lines 13-17; Paragraph 0031, lines 11-19).

Regarding claim 16, the rejection of claim 8 is incorporated and further Liao disclosed displaying a hot key that triggers the execution of a plurality of instructions in accordance with a state of the laptop computer (Paragraph 0030, lines 1-12).

Regarding claim 17, the rejection of claim 8 is incorporated and further Liao disclosed displaying an application result (Paragraph 0031, lines 1-5).

Regarding claim 20, the rejection of claim 8 is incorporated and further Liao disclosed displaying a drop-down menu on the second display (Paragraph 30, lines 24-29).

Regarding claim 22, Liao disclosed a signal-bearing medium tangibly embodying a program of machine-readable instructions executable by a digital processor for driving a laptop computer having a first display attachable to a second display that is touch-sensitive apparatus (Abstract, lines 1-20; Figure 1), the program comprising:

instructions for displaying a user-interface on the second display (Abstract, lines 20-25; Paragraph 0011, lines 8-13, Paragraph 0029, lines 1-11);

instructions for receiving an input from the user-interface (Abstract, lines 15-25)

Liao did not specifically disclose wherein said user-interface is reconfigurable to move a key within the user-interface. However, in an analogous art, Dardick disclosed the above limitation (Paragraph [0009], where displaying keys in multiple arrangements means the user-interface is reconfigurable to move a key). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Dardick into the user-interface of Liao since it allows for customization of touch-sensitive user-interfaces (Dardick: Page 1, paragraph [0008], lines 1-5; paragraph [0016], lines 6-9).



Regarding claim 23, Liao disclosed a laptop computer comprising:

a first display (Figure 1, element 105);

a second display that is touch sensitive and attached to the first display (Figure 1, element 107; Paragraph 0029, lines 1-11);

means for displaying a user-interface on the second display (Abstract, lines 20-25; Paragraph 0011, lines 8-13, Paragraph 0029, lines 1-11),

means for receiving an input from the user-interface (Abstract, lines 15-25); and

Liao did not specifically disclose wherein said user-interface is reconfigurable to move a key within the user-interface. However, in an analogous art, Dardick disclosed the above limitation (Paragraph [0009], where displaying keys in multiple arrangements means the user-interface is reconfigurable to move a key). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Dardick into the user-interface of Liao since it allows for customization of touch-sensitive user-interfaces (Dardick: Page 1, paragraph [0008], lines 1-5; paragraph [0016], lines 6-9).

Regarding claim 24, Liao disclosed a method of providing a display for a laptop computer, the method comprising:

providing a first display (Figure 1, element 105);

and providing a second display attachable to the first display, wherein the second display comprises a touch-sensitive display that displays a reconfigurable user-interface

(Figure 1, element 107; Paragraph 0029, lines 1-11; Abstract, lines 20-25; Paragraph 0011, lines 8-13),

Liao did not specifically disclose wherein said user-interface is reconfigurable to move a key within the user-interface. However, in an analogous art, Dardick disclosed the above limitation (Paragraph [0009], where displaying keys in multiple arrangements means the user-interface is reconfigurable to move a key). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Dardick into the user-interface of Liao since it allows for customization of touch-sensitive user-interfaces (Dardick: Page 1, paragraph [0008], lines 1-5; paragraph [0016], lines 6-9).

Regarding claim 25, Liao disclosed a laptop computer comprising:

- a first display (Figure 1, element 105); and
- a second display attachable to the first display, wherein the second display comprises a customizable user-interface (Figure 1, element 107; Paragraph 0029, lines 1-11; Abstract, lines 20-25; Paragraph 0011, lines 8-13)

Liao did not specifically disclose wherein said user-interface is reconfigurable to move a key within the user-interface. However, in an analogous art, Dardick disclosed the above limitation (Paragraph [0009], where displaying keys in multiple arrangements means the user-interface is reconfigurable to move a key). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Dardick into the user-interface of Liao since it allows for customization of

touch-sensitive user-interfaces (Dardick: Page 1, paragraph [0008], lines 1-5; paragraph [0016], lines 6-9).

Regarding claim 26, the rejection of claim 1 is incorporated and further Liao did not specifically disclose wherein said user-interface is further reconfigurable to one of:

- remove a key from the user-interface;
- change a label on a key on a user-interface;
- and change a color of a key on the user-interface.

However, in an analogous art, Dardick disclosed the above limitations (Page 1, paragraph [0008], lines 1-5; paragraph [0016], lines 6-9; Claims 2 and 7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Dardick into the user-interface of Liao since it allows for customization of touch-sensitive user-interfaces (Dardick: Page 1, paragraph [0008], lines 1-5; paragraph [0016], lines 6-9).

4. Claims 18 and 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Liao (US 2004/0021681) in view of Dardick (US 2002/0075317) as applied to claims 1-2, 4-10, 12-14, 16, 17, 20, and 22-25 above, and further in view of Huffman et al. (USPN 5,761,682).

Regarding claim 18, the rejection of claim 17 is incorporated. Liao does not specifically disclose wherein displaying an application result comprises displaying a first page of an

electronic book on one of the first display and the second display. However, Huffman disclosed the above limitation (Column 5, lines 44-46; Figure 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Huffman for the purpose of allowing users to more easily read pages of an electronic book.

Regarding claim 19, the rejection of claim 17 is incorporated. Liao and Dardick not specifically disclose wherein the displaying of the application result further comprises displaying a second page of an electronic book on the other one of the first display and the second display. However, Huffman disclosed the above limitation (Column 5, lines 44-46; Figure 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Huffman for the purpose of allowing users to more easily read pages of an electronic book.

5. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liao (US 2004/0021681) in view of Dardick (US 2002/0075317) as applied to claims 1-2, 4-10, 12-14, 16, 17, 20, and 22-25 above, and further in view of Stanek (USPN 5,936,554).

Regarding claim 21, the rejection of claim 8 is incorporated. Liao and Dardick do not specifically disclose wherein displaying the user-interface comprises displaying a color-coded keyboard. However, Stanek disclosed the above limitation (Column 2, lines 5-8). It would have been obvious to one of ordinary skill in the art at the time

the invention was made to incorporate the teachings of Stanek in order to allow users to more easily discern keys and makes a keyboard more user-friendly (Column 2, lines 1-8).

***Response to Arguments***

Applicant is reminded that any citation to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. In re Heck, 699 F.2d 1331, 1332-33, 216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting In re Lemelson, 397 F.2d 1006, 1009, 158 USPQ 275, 277 (CCPA 1968)).

5. Applicant's arguments filed 9/6/07 have been fully considered but they are not persuasive. Applicant argued that the now claimed limitation "wherein said user-interface is reconfigurable to move a key within the user-interface" is not disclosed by Dardick, however, as shown in the rejections of amended claims 1, 8 and 22-25 above, Dardick does in fact disclose that limitation (Paragraph [0009], where displaying keys in multiple arrangements means the user-interface is reconfigurable to move a key). For example, configuring keys to be arranged alphabetically and configuring keys to be arranged based on the QWERTY arrangement of standard keyboards means certain keys must be moved from one position to another.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim-Lynn Dam whose telephone number is (571) 270-1408. The examiner can normally be reached on M-TH 8:00-5:30, every other Friday 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (571) 272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kim-Lynn Dam



**WEILUN LO**  
**SUPERVISORY PATENT EXAMINER**